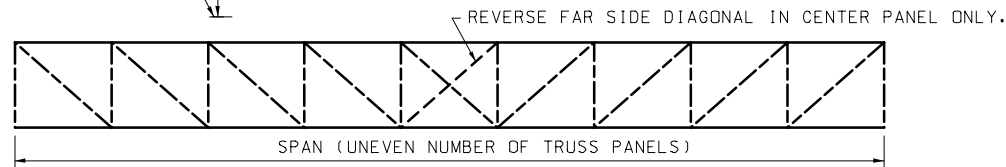
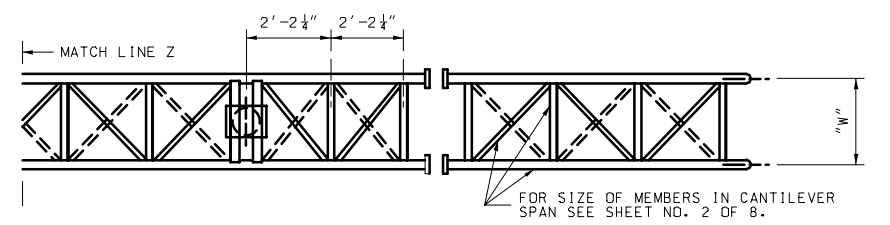
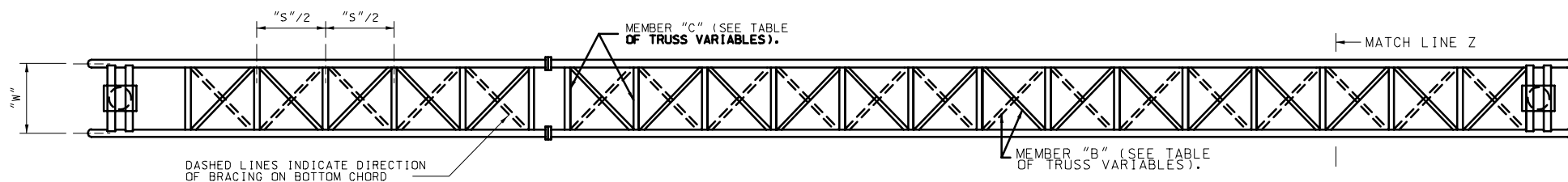


ELEVATION
(SIMPLE TRUSS)

ELEVATION
(SIMPLE TRUSS MODIFIED
FOR CANTILEVER SPAN)



TRUSS ELEVATION



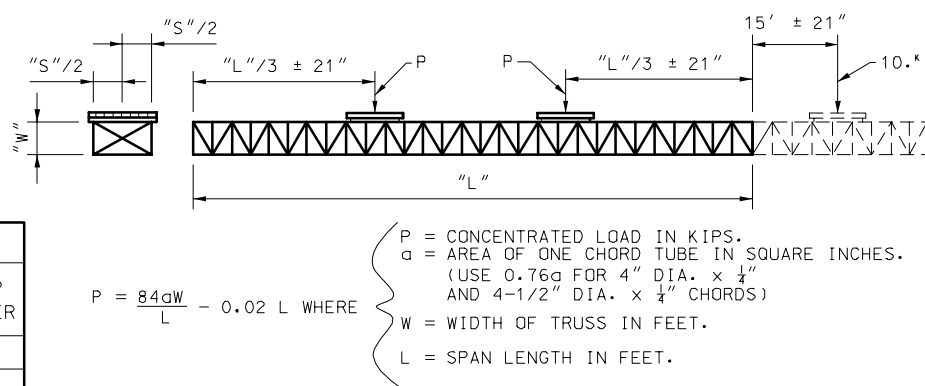
PLAN

PLAN

TRUSS VARIABLES						
SPAN	"S"	"W"	MEMBER "A"	MEMBER "B"	MEMBER "C"	SHOP CAMBER
UP TO 70'-6"	6'-0"	5'-0"	2 1/2" DIA. x 1/8"	2 1/2" DIA. x 1/8"	1 3/4" DIA. x 1/8"	3/4"
71' TO 80'-6"	6'-0"	6'-0"	2 1/2" DIA. x 1/8"	2 1/2" DIA. x 1/8"	2" DIA. x 1/8"	1 1/4"
81' TO 90'-6"	6'-0"	6'-0"	2 1/2" DIA. x 1/8"	2 3/4" DIA. x 1/8"	2" DIA. x 1/8"	1 1/2"
91' TO 100'-6"	6'-0"	6'-0"	2 1/2" DIA. x 1/8"	2 3/4" DIA. x 1/8"	2" DIA. x 1/8"	2 1/4"
101' TO 110'-6"	7'-0"	7'-0"	2 1/2" DIA. x 1/8"	3" DIA. x 1/8"	2 1/4" DIA. x 1/8"	2 1/2"
111' TO 120'-6"	7'-0"	7'-0"	2 1/2" DIA. x 1/8"	3 1/2" DIA. x 1/8"	2 1/4" DIA. x 1/8"	2 3/4"
121' TO 130'-6"	7'-0"	7'-0"	3" DIA. x 1/8"	3 1/2" DIA. x 1/8"	2 1/4" DIA. x 1/8"	3 3/4"
131' TO 140'-6"	8'-0"	7'-0"	3" DIA. x 1/8"	3 3/4" DIA. x 1/8"	2 1/2" DIA. x 1/8"	3"
141' TO 150'-6"	8'-0"	7'-0"	3" DIA. x 1/8"	3 3/4" DIA. x 1/8"	2 3/4" DIA. x 1/8"	3 3/4"
151' TO 160'-6"	8'-0"	7'-0"	3" DIA. x 1/8"	3 3/4" DIA. x 1/8"	2 3/4" DIA. x 1/8"	4 1/2"

NOTE: FOR SIZE OF CHORD MEMBERS, SEE DATA SHEET.

SHOP CAMBER MAY BE PARABOLIC OR STRAIGHT, BUT SHALL BE SYMMETRICAL ABOUT CENTERLINE OF SPAN.



P = CONCENTRATED LOAD IN KIPS.
 a = AREA OF ONE CHORD TUBE IN SQUARE INCHES.
 (USE 0.76a FOR 4" DIA. x 1/4"
 AND 4-1/2" DIA. x 1/4" CHORDS)
 W = WIDTH OF TRUSS IN FEET.
 L = SPAN LENGTH IN FEET.

SAMPLE, GIVEN: a = 4.123 SQ. IN., W = 6'-0" AND L = 100'.

SOLUTION: P = $\frac{84 \times 4.123 \times 6.0}{100} - 0.02 \times 100 = 20.8 - 2 = 18.8^k$

NOTE: IF CANTILEVERED, REMOVE CONCENTRATED LOAD NEAREST CANTILEVER END AND LOAD CANTILEVER SPAN AS SHOWN ABOVE.

15' OR LESS CANTILEVER SPANS NEED NOT BE TESTED.

REPEAT ABOVE TESTS BY ROTATING 180° (TO SIMULATE WIND REVERSAL).

NO VERTICAL LOAD (D.L.) TEST WILL BE REQUIRED.

LOADS P SHALL NOT BE MORE THAN 16.^k FOR SPANS LESS THAN 55 FEET AND 20.^k FOR ALL OTHERS.

SIMULATED WIND-SHOP TEST LOADING

GENERAL NOTES:

ALL STRUCTURAL STEEL AND COLUMN BASE PLATES ASTM A36.

ALL ANCHOR BOLTS ASTM A307.

PROPOSED FIELD SPLICES SHALL BE SHOWN ON SHOP DRAWINGS FOR APPROVAL OF THE ENGINEER.

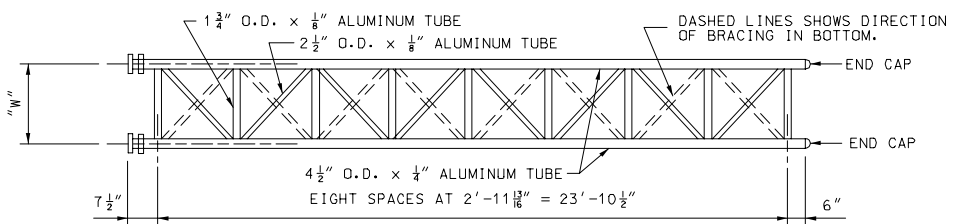
TRUSSES SHALL BE FABRICATED WITH A MINIMUM OF SPLICING IN TRUSS CHORDS.

FIELD SPLICING WILL NOT BE PERMITTED WITHIN THE MIDDLE ONE-THIRD OF SPAN.

PERMISSIBLE VENT HOLES (MAXIMUM 1/8" DIAMETER) SHALL BE PLACED A MINIMUM OF 3" FROM WELD ON LOW SIDE OF HORIZONTAL, VERTICAL AND DIAGONAL TUBES.

FOR ADDITIONAL INFORMATION SEE DATA SHEET.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
OVERHEAD SIGN TRUSSES ALUMINUM			
DATE: _____	EFFECTIVE: 06-01-2006	903.10AA	1/6



3" O.D. x $\frac{1}{8}$ " ALUMINUM TUBE

3' 5"

3/32"

12"

END CAP

4 1/2" O.D. x $\frac{1}{4}$ " ALUMINUM TUBE

END CAP

2 1/2" O.D. x $\frac{1}{8}$ " ALUMINUM TUBE

THREE SPACES AT 6'-3 1/2" = 18'-10 1/2"

7 1/2"

20'-0"

6"

A

A

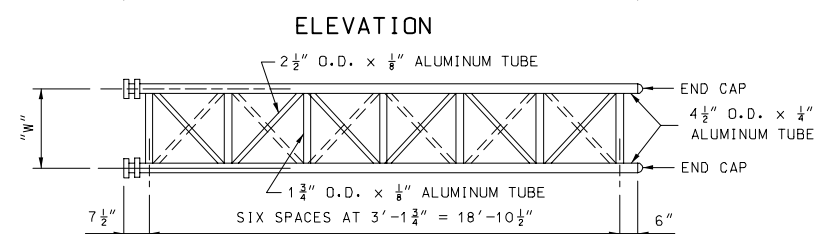
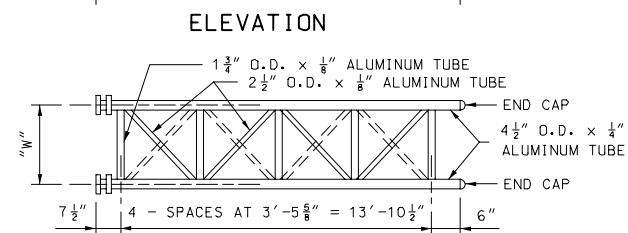
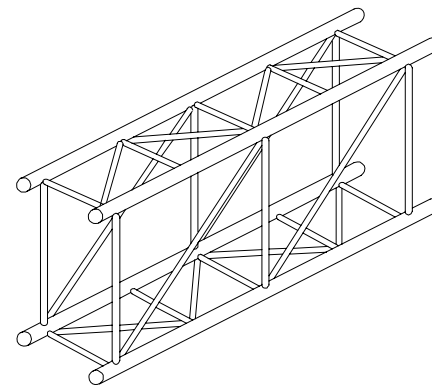
[illegible]

Diagram showing a 1/4" PLATE with a hole and a bracket labeled G.

NOTE: WHEN THE VERTICALS, STRUTS AND SWAYS OBSTRUCT THE PLACING OF BOLTS IN THE FLANGES THESE MEMBERS MAY BE MOVED BACK IN ORDER TO CLEAR THE BOLTS. (ONE SIDE OF SPLICE ONLY).



4 1/2" O.D. x 1/4" ALUMINUM TUBE

3 1/4" O.D. x 1/8" ALUMINUM TUBE

REVERSE DIRECTION OF DIAGONALS ON ALTERNATE PANELS.

TYP. 3/16"

4 1/2" O.D. x 1/4" ALUMINUM TUBE

"S"

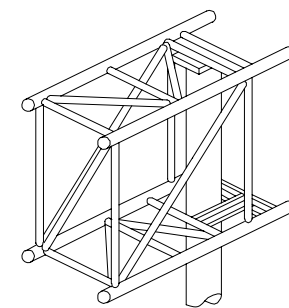
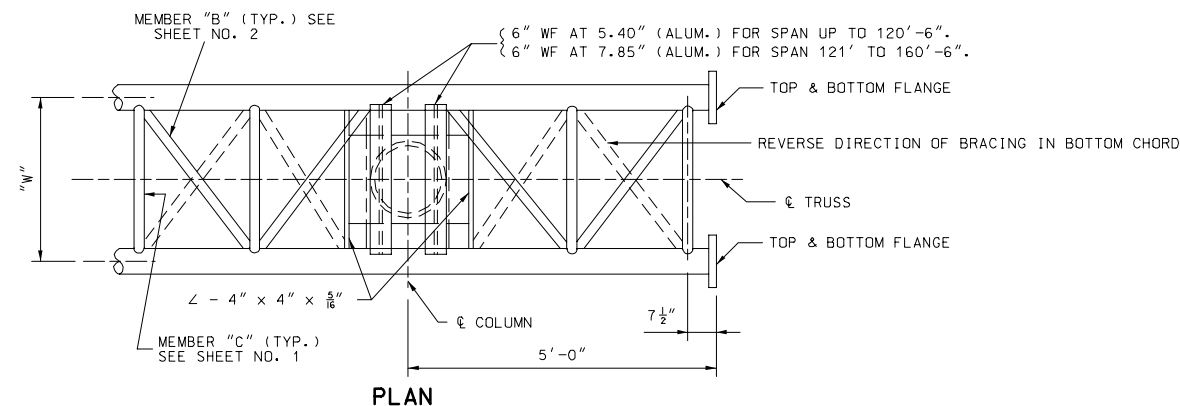
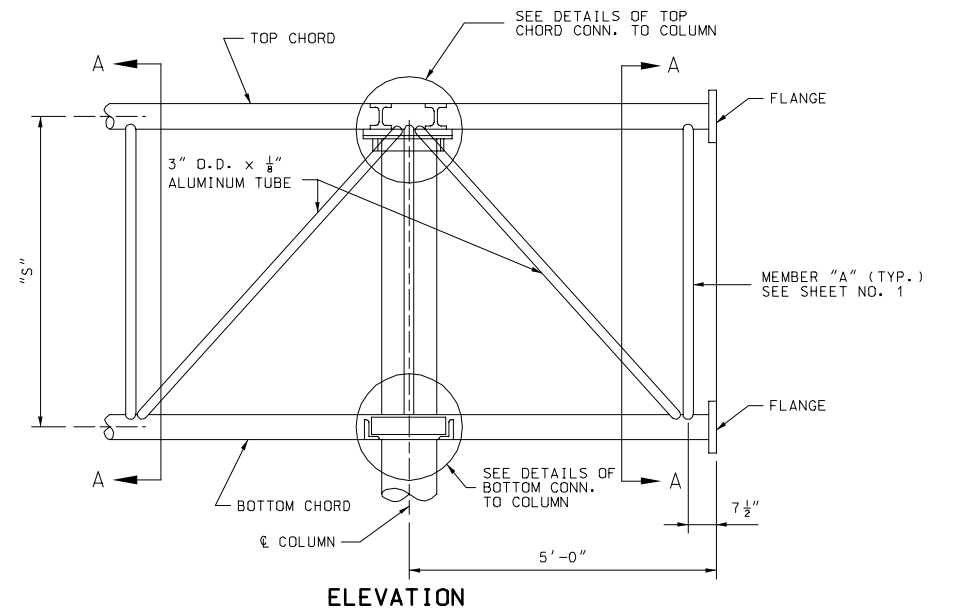
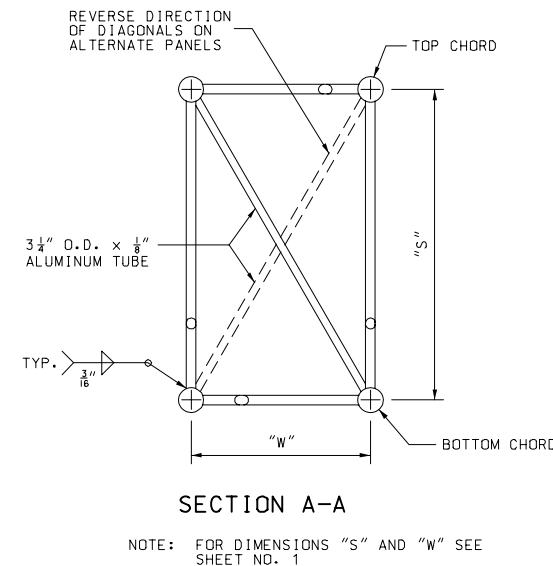
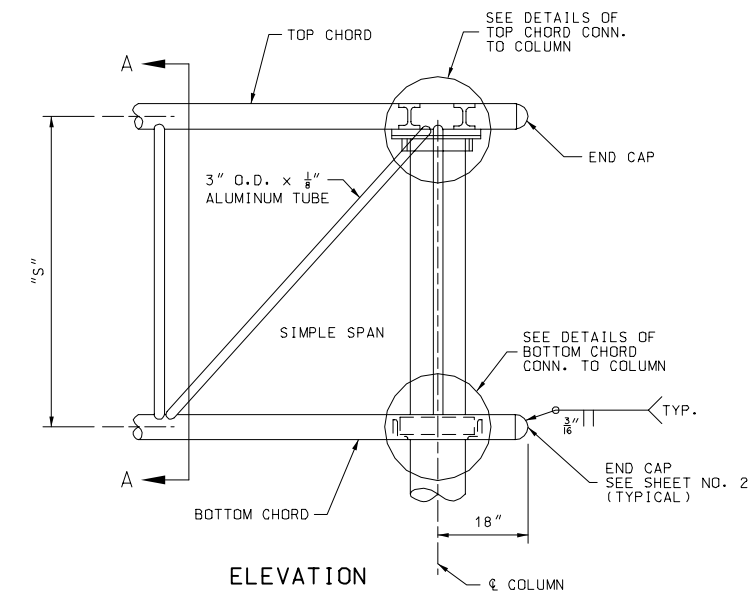
"W"

[illegible]

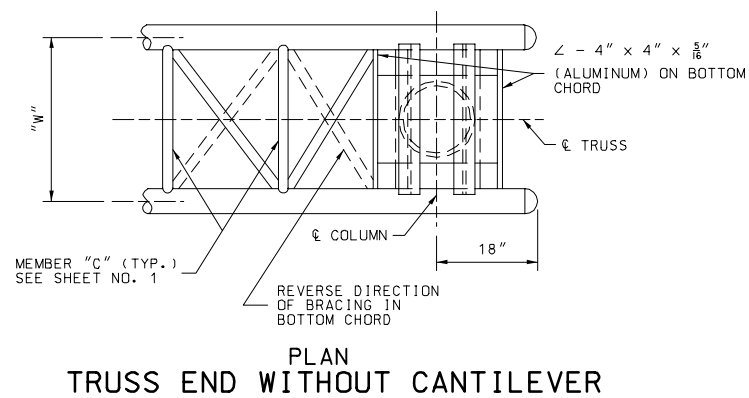
SECTION B-B

TUBE SIZE	BOLT NO. AND DIA.	TORQUE
4" DIA. TO ALL DIAMETERS	6-3/4" DIA.	320 FT.LB. OR ONE-HALF TURN
4-1/2" DIA. THRU 6-1/2" DIA.	6-3/4" DIA.	320 FT.LB. OR ONE-HALF TURN
7" DIA. THRU 7-1/2" DIA.	8-3/4" DIA.	320 FT.LB. OR ONE-HALF TURN
8" DIA. THRU 9" DIA.	8-7/8" DIA.	470 FT.LB. OR ONE-HALF TURN

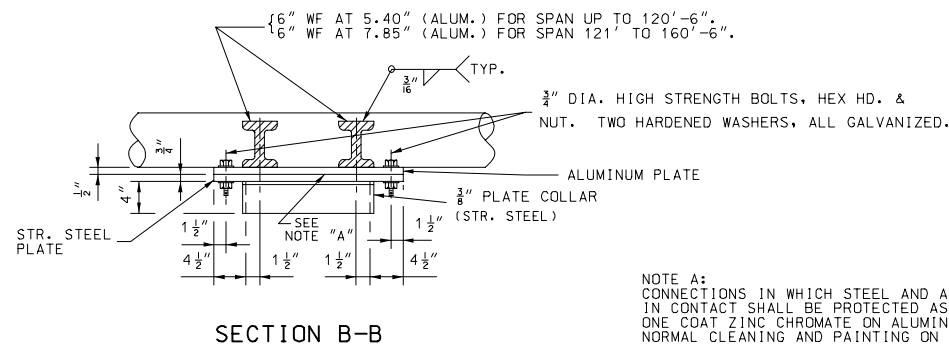
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
	OVERHEAD SIGN TRUSSES ALUMINUM		
DATE: _____	EFFECTIVE: 06-01-2006	903.10AA	<div>2</div> <div>6</div>



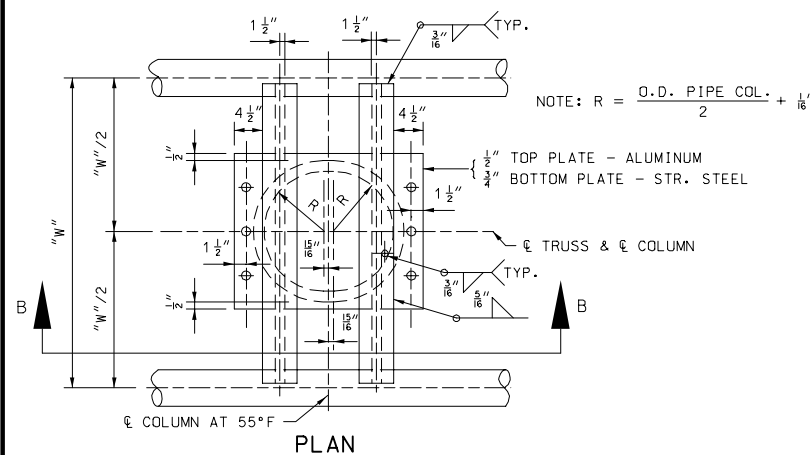
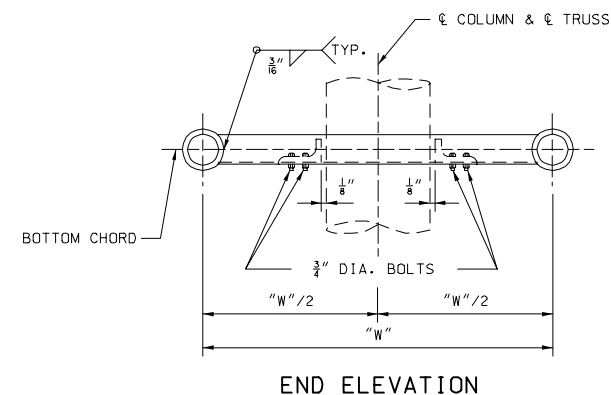
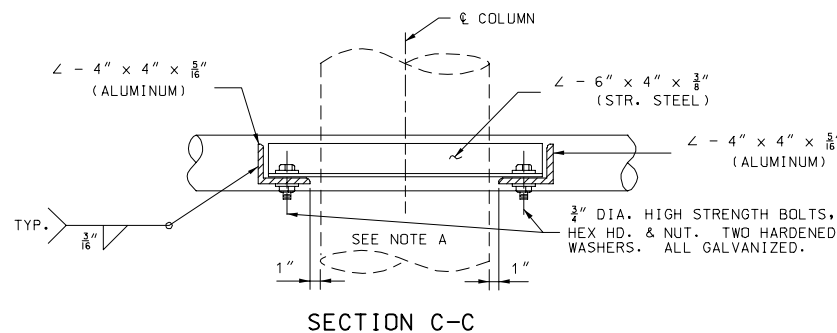
TYPICAL ISOMETRIC VIEW OF END SECTION



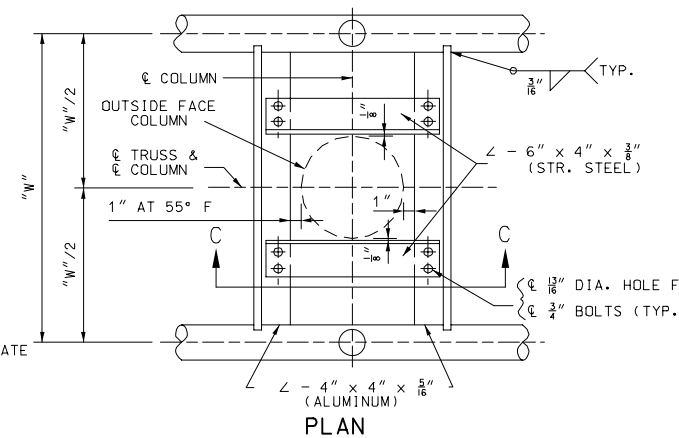
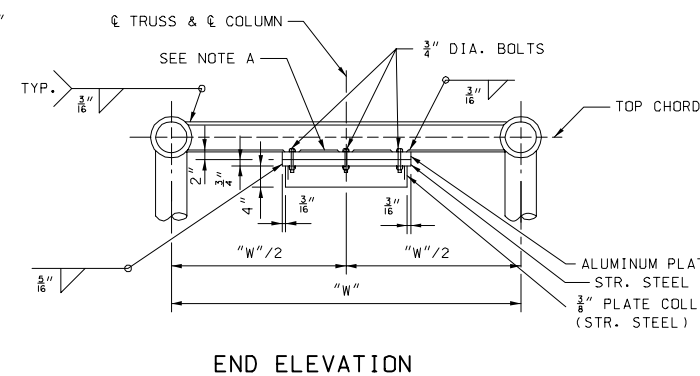
TRUSS END MODIFIED FOR CANTILEVER



NOTE A:
CONNECTIONS IN WHICH STEEL AND ALUMINUM ARE
IN CONTACT SHALL BE PROTECTED AS FOLLOWS:
ONE COAT ZINC CHROMATE ON ALUMINUM SURFACES.
NORMAL CLEANING AND PAINTING ON STEEL SURFACES.
NO ZINC CHROMATE REQUIRED IF STEEL IS GALVANIZED.

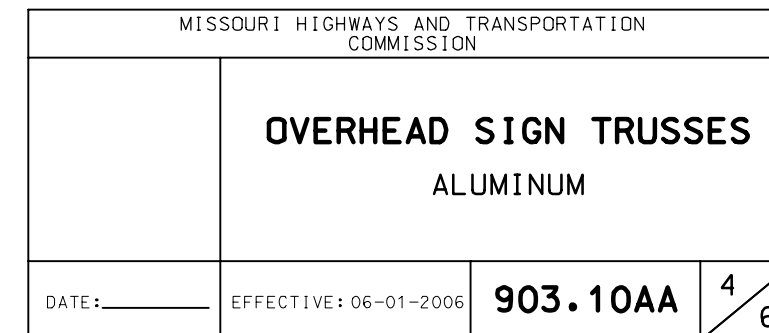


DETAIL OF TOP CHORD CONNECTION TO COLUMN



DETAILS OF BOTTOM CHORD CONNECTION TO COLUMN

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
OVERHEAD SIGN TRUSSES ALUMINUM			
DATE: _____	EFFECTIVE: 06-01-2006	903.10AA	3/6





POST TYPE	PIPE COLUMN	PEDESTAL SIZE *		FOOTING SIZE *	LONGITUDINAL FOOTING REINFORCEMENT		CONCRETE CU. YDS
		c	d		TOP	BOTTOM	
I	12" STD. AT 65.42	2'-1"	2'-9"	7'-0" x 14'-6"	7 - #5 BARS	7 - #6 BARS	10.9
II	14" O.D. AT 72.09	2'-2"	6'-2"	8'-0" x 16'-0"	8 - #5 BARS	9 - #6 BARS	13.2
III	16" O.D. AT 82.77	2'-4"	6'-7"	8'-6" x 17'-6"	9 - #5 BARS	9 - #7 BARS	15.2
IV	18" O.D. AT 93.45	2'-6"	7'-1"	9'-6" x 19'-0"	10 - #5 BARS	10 - #8 BARS	18.1
V	20" O.D. AT 104.13	2'-11"	7'-8"	10'-0" x 20'-0"	10 - #5 BARS	10 - #8 BARS	20.6
VI	24" O.D. AT 125.49	3'-5"	8'-3"	10'-6" x 21'-0"	11 - #5 BARS	11 - #8 BARS	23.3
VII	24" O.D. AT 125.49	3'-5"	8'-6"	11'-0" x 22'-0"	11 - #5 BARS	11 - #9 BARS	25.1

* BASE PLATES, PEDESTAL, AND FOOTINGS LONGER SIDES SHALL BE NORMAL TO AXIS OF SIGN.

GENERAL NOTES:

A TAPERED TUBE OF EQUIVALENT SIZE AND THICKNESS MAY BE SUBSTITUTED FOR PIPE POST.

ALL STEEL PIPE COLUMNS SHALL BE EITHER GRADE "B" SEAMLESS STEEL PIPE OR GRADE "B" ELECTRIC RESISTANCE WELDED STEEL PIPE; A.S.T.M. SPECIFICATION A53. NO OBJECTIONABLE SEAMS WILL BE PERMITTED.

ALL STRUCTURES SHALL BE GROUNDED.

BURR THREADS ON ALL ANCHOR BOLTS.

PIPE COLUMN, BASE PLATE, ANCHOR BOLTS AND NOTES PERTAINING TO THESE ITEMS
HAVE BEEN OMITTED FOR CLARITY. REFER TO SHEET NO. 4 OF 8 FOR DETAILS OF
THESE ITEMS.

GROUND LUGS SHALL BE LOCATED INSIDE COLUMN NEAR HAND HOLE.

QUANTITIES FOR PEDESTAL, BASED ON NOMINAL HEIGHT OF 5'-2".

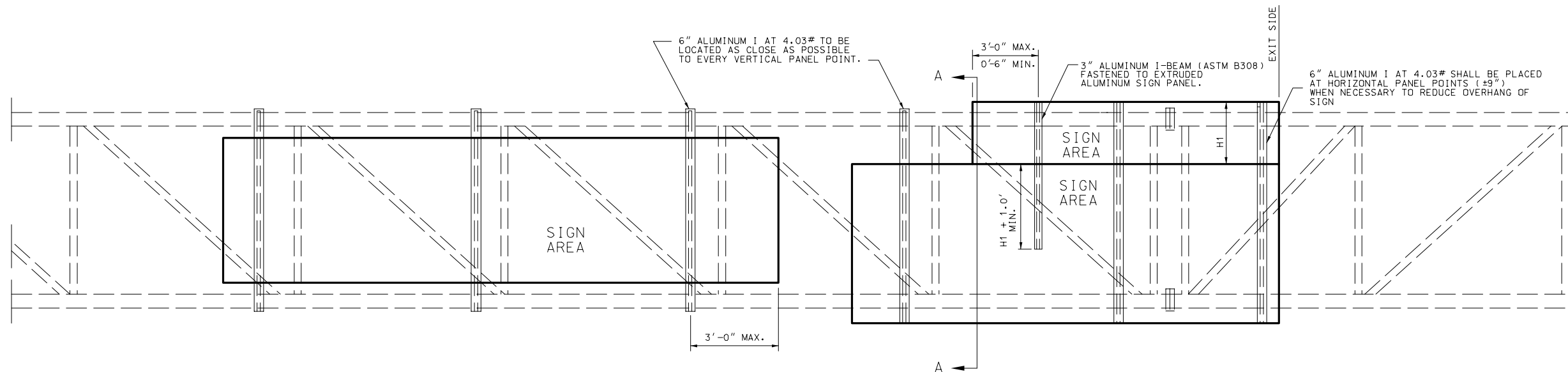
QUANTITIES FOR FOOTING, BASED ON NOMINAL DEPTH OF 2'-0".

QUANTITIES SHOWN ARE FOR ONE COLUMN ONLY.

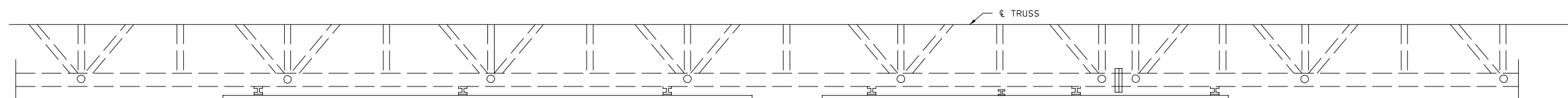
SECTION C-C
TYPICAL SECTION SHOWING
REINFORCING STEEL

DETAILS OF ALTERNATE PEDESTAL (TO BE USED ADJACENT TO TYPE "A" MEDIAN BARRIER)

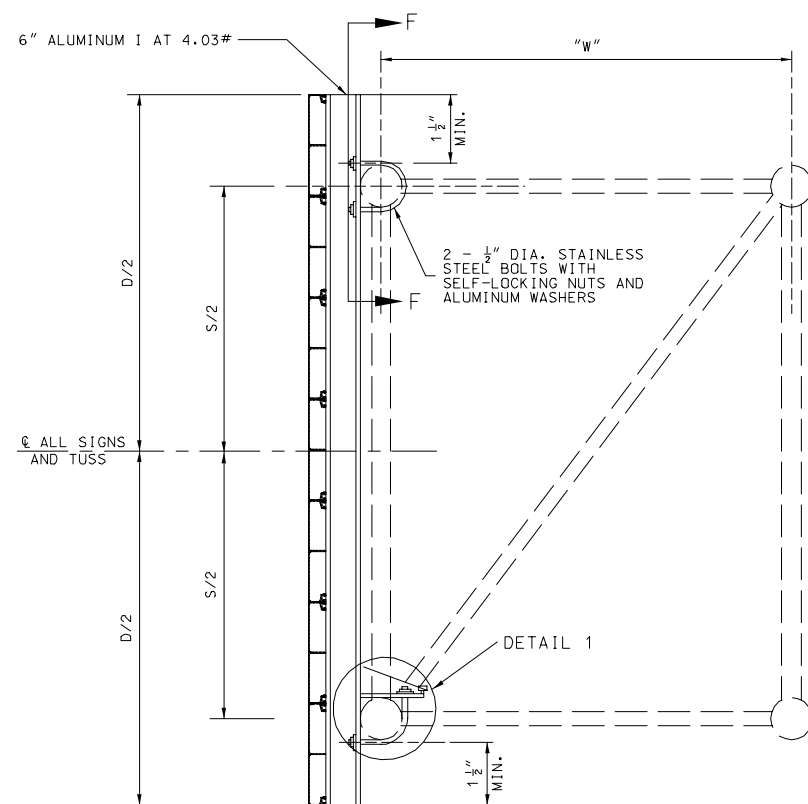
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
	<p style="text-align: center;">OVERHEAD SIGN TRUSSES</p> <p style="text-align: center;">ALUMINUM</p>		
DATE: _____	EFFECTIVE: 06-01-2006	903.10AA	<div style="text-align: center;">5 6</div>



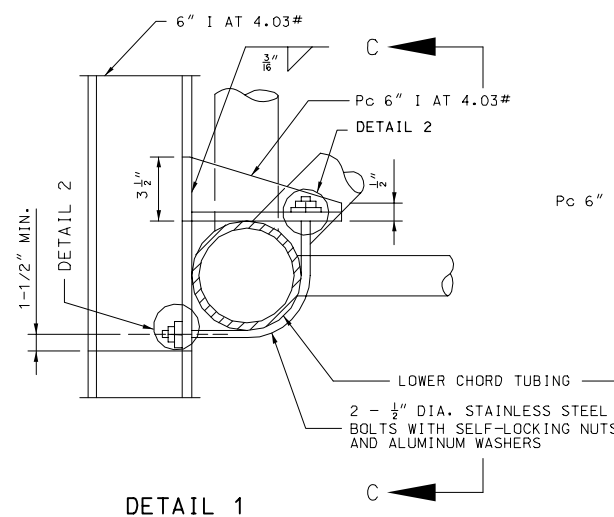
TYPICAL ELEVATION OF SIGN COMPONENTS



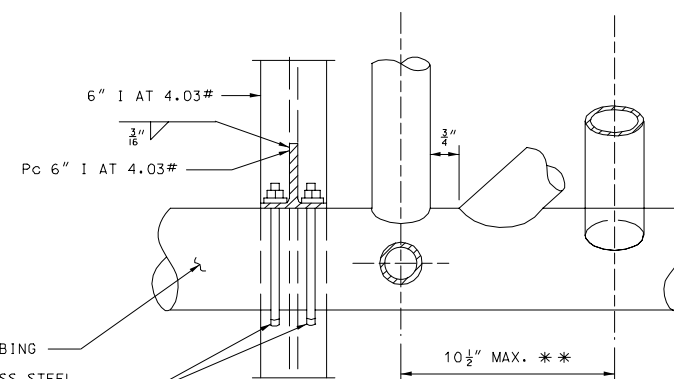
TYPICAL HALF PLAN OF SIGN COMPONENTS



SECTION A-A
TYPICAL SECTION OF SIGN SUPPORT

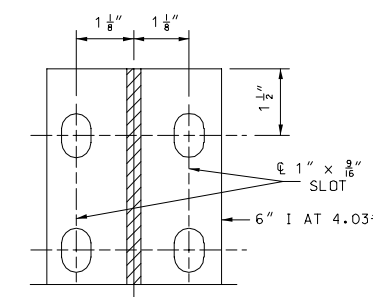


DETAIL 1

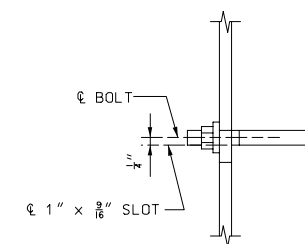


SECTION C-C

*** LOCATE THE INTERIOR DIAGONAL AS CLOSE AS POSSIBLE TO THE CENTERLINE OF THE PANEL POINT WITHOUT OVERLAPPING WELDS.



SECTION F-F



DETAIL 2

GENERAL NOTES:
EXIT NO. PANELS SHALL BE MOUNTED FLUSH WITH THE EXIT SIDE OF THE GUIDE SIGN.
ALL SIGNS SHALL BE CENTERED VERTICALLY ABOUT THE HORIZONTAL ℄ OF THE TRUSS.
SEE STD. PLAN 903.09 FOR LIGHTING DETAILS IF LIGHTING THE SIGN IS NECESSARY.
SEE STD. PLAN 903.03 FOR SIGN MOUNTING DETAILS.
ALL MATERIAL ALUMINUM EXCEPT AS NOTED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
OVERHEAD SIGN TRUSSES ALUMINUM			
DATE: _____	EFFECTIVE: 06-01-2006	903.10AA	6/6